

course due to the Office of the Secretary of Defense. On the other hand, the Office of the Chief of Naval Operations, and others in the Navy Department including the secretariat contributed their full share - in reaction, perhaps, to what was being done above.

Q: Did the Cuban missile crisis have any immediate impact on this whole area?

Adm. H.: I wouldn't know because, you see, I reported maybe sixteen months or more after the Cuban missile crisis, which I believe was in the spring of '61.

Q: That was the Bay of Pigs.

Adm. H.: Yes, I was thinking of the Bay of Pigs. The Cuban missile crisis undoubtedly helped in fund justification but it did not deter the experts in the micro approach to problems.

The position of DCNO, Development, had been set up under Chick Hayward, Vice Admiral Hayward. He had understandably brought in Dr. Bobby Burns from the Office of Naval Research, who at one stage of the game had gained the title of Development Coordinator. Burns did leave over in ONR Mrs. Mary Ferguson, who ran the fiscal affairs in very competent fashion without interference with the programs, a very talented person. But Bobby, I believe, had a great deal to do with setting up a

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from details that might be better delegated to the bureaus. I probably made some contributions. I'm sure I did, but progress was disappointing.

Q: Is an agenda, such as you outline here, an ongoing thing with the man who takes command after you, or is it something that could be scrapped?

Adm. H.: It can be scrapped. What the status is now, I don't know, but I doubt if things are in ideal shape now because of this tendency to want to review and kibitz on each and every detail down to the lowest level. The tendency is fragmentation rather than the formulation of programs and projects in a more basic fashion.

Well, to get on with the subject. In the last session, you raised a couple of questions that I don't believe I fully answered.

One of the questions you asked was about the impact of the Cuban missile crisis. Last week, I came across an article that I'd written - I was asked to write it after I'd given a speech at the National Security Industrial Association meeting in New York. It was published in April of 1963 and was titled "The Warfare of Inner Space." Relevant to your question, note that I had in the article these words: "recently there has been a realization that the submarine threat was important not solely from the point of view of general war but of many

forms of limited war as well. If any doubt remained on this matter it disappeared last fall. The Cuban crisis presented startling evidence of the reality of the submarine threat in limited-war situations. The immediate impact of the crisis was a 20 percent increase in the antisubmarine warfare research and development budget, which was already a fourth to a fifth of the Navy's funding in research and development. Many of those reviewing our antisubmarine warfare programs had been thinking almost solely in terms of a general war. During the crisis, as you know, an important part of the deterrent effect of the quarantine had been the location, identification, and continuous tracking of the Soviet submarines that had been deployed in the western Atlantic."

The second question you raised had to do with testing. I discussed negotiations for a facility in the Tongue of the Ocean and on Andros Island, but I failed to mention various purposes of the range. These included the testing and calibration of sonars, oceanographic measurements, and the measurement and analysis of underwater sound, both passive and active. There was another purpose, the testing of complete modern antisubmarine warfare weapon systems. This was to involve tracking launching vehicles above and below the surface of the sea, tracking target submarines, and tracking weapons.

The Tongue of the Ocean was ideal for this purpose, being about 100 miles long and, down at the southwest end, about 40 miles wide. One of the planned series of tests was